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STATE DOCUMENT

FIFTH REPORT CALENDAR 1960

ALSO CUMULATIVE REPORT FOR 1956 THROUGH 1960

INFANT

and

NEONATAL MORTALITY

and

STILLBIRTH RATES

by

PREPARED BY:

MONTANA STATE BOARD OF HEALTH
DIVISION OF CHILD HEALTH SERVICES
DIVISION OF RECORDS AND STATISTICS

- AND -

MONTANA MEDICAL ASSOCIATION

MATERNAL & CHILD WELFARE COMMITTEE

MONTANA HOSPITALS

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FOREWORD

TO: Hospital Administrators
Medical Staffs, and Nurses

This is the fifth annual report of births, and infant and fetal deaths that occurred in Montana Hospitals. The objectives of this report are to disseminate vital information to the medical and nursing professions and to hospital administrators; also, to improve the caliber of maternal and newborn care in hospitals.

As in previous years, all hospitals in Montana doing obstetrics cooperated with the State Board of Health and the Maternal and Child Welfare Committee of the Montana Medical Association by returning quarterly information on the number of live births, stillbirths, neonatal, and infant deaths occurring in their respective hospitals. This information has been tabulated for each of four groups representing a classification by number of hospital beds.

In 1960, there were 17,045 live births in Montana, by place of occurrence (this does not include home deliveries), for a rate of 25.3 per 1,000 estimated population. There were 322 infant deaths, with a rate of 18.9 per 1,000 live births. Of these, there were 279 neonatal deaths, with a rate of 16.3 per 1,000 live births. There were also 202 fetal deaths, with a rate of 11.0 per 1,000 live births. The perinatal death rate was 28.3 per 1,000 live births.

The above data show little difference from the perinatal and infant death rates in 1959, even though the birth rate had markedly declined. In 1959, the birth rate (by place of occurrence) was 26.1 per 1,000 estimated population. The infant death rate was 19.2; neonatals, 16.2; fetal, 12.3; and perinatal, 28.6, all calculated rates per 1,000 live births.

Because of the interest shown in previous reports of this type, it has been decided to continue this study. It is hoped that hospitals and medical staffs will continue to cooperate by reporting mortalities and by continuing to support the perinatal death studies. This year, hospitals are ranked on the basis of their neonatal death rates instead of infant deaths. It was felt that by so doing a more accurate picture of the obstetric and newborn care rendered would be obtained. The hospital ranked number 1, in each group, has the lowest neonatal death rate in that bed class. Your hospital is checked in red in the report. It is further hoped that the administrators, medical staffs, and nurses will review the report and consider where improvements can be made in their own hospital.

We are continuing the cumulative report, which this year will be for five years. Those hospitals not having figures for five years are not included in this report.

Montana State Board of Health
Maternal and Child Welfare Committee
of the Montana Medical Association

#1 A - GENERAL HOSPITALS
(100 beds or more)

Montana - 1960

Infant and Fetal Mortalities

Neo- natal rank in group	No. of live Births	Number of Deaths				Rate per 1,000 live births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant	1 - 11 Months	Neonatal	Stillbirth
Total	6,966	132	17	115	84	mean 18.9	2.4	16.4	12.1
1	453	4	1	3	4	8.8	2.2	6.6	8.8
2	1,022	17	2	15	16	16.6	2.0	14.7	15.7
3	887	15	1	14	10	16.9	1.1	15.8	11.2
4	961	18	2	16	13	18.7	2.1	16.6	13.4
5	1,014	19	2	17	9	18.7	1.9	16.8	8.9
6	349	6	0	6	2	17.2	0.0	17.2	5.7
7	1,239	26	4	22	17	20.9	3.2	17.8	13.7
8	1,011	25	4	21	13	24.7	4.0	20.8	12.9
9	30	2	1	1	0	66.6	33.3	33.3	0.0

#1 B - GENERAL HOSPITALS
(100 beds or more)

Montana - 1956 through 1960

Year	No. of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant	1 - 11 Months	Neonatal	Stillbirth
Total	36,799	735	106	629	438	19.9	2.8	17.1	11.9
1956	7,577	165	29	136	92	21.8	3.8	17.9	12.1
1957	7,778	152	22	130	86	19.5	2.8	16.7	11.1
1958	7,318	128	11	117	96	17.5	1.5	15.9	13.1
1959	7,160	158	27	131	80	22.1	3.7	18.3	11.2
1960	6,966	132	17	115	84	18.9	2.4	16.4	12.1

#1 C - GENERAL HOSPITALS
(100 beds or more)

Montana - 5 Year Period - 1956-1960

Neo- natal rank in group	No. of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant	1 - 11 Months	Neonatal	Stillbirth
Total	36,799	735	106	629	438	19.9	2.8	17.1	11.9
1	4,582	71	14	57	62	15.5	3.1	12.4	13.5
2	1,861	31	6	25	14	16.6	3.2	13.4	7.5
3	2,521	40	3	37	34	15.9	1.2	14.7	13.5
4	4,717	93	16	77	43	19.7	3.4	16.3	9.1
5	6,724	124	11	113	79	18.4	1.6	16.8	11.7
6	4,382	97	22	75	50	22.1	5.2	17.1	11.4
7	2,348	51	9	42	44	21.7	3.8	17.8	18.7
8	4,411	100	8	92	46	22.7	1.8	20.9	10.4
9	5,253	128	17	111	66	24.3	3.2	21.1	12.5

#2 A - INTERMEDIATE GENERAL HOSPITALS
(40-99 beds)

Montana - 1960

Infant and Fetal Mortalities

Neo- natal rank in group	No. of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant mean	1 - 11 Months	Neonatal	Stillbirth
Total	6,177	110	13	97	68	17.8	2.1	15.7	11.0
1	224	1	0	1	3	4.5	0.0	4.5	13.4
2	256	3	1	2	2	11.7	3.9	7.8	7.8
3	628	6	0	6	2	9.6	0.0	9.6	3.2
4	432	4	0	4	2	11.7	0.0	11.7	5.8
5	330	4	0	4	7	12.1	0.0	12.1	21.2
6	381	5	0	5	3	12.1	0.0	13.1	7.9
7	364	8	3	5	4	22.0	8.3	13.7	11.0
8	347	5	0	5	6	14.4	0.0	14.4	17.3
8	623	9	0	9	10	14.4	0.0	14.4	2.9
9	238	6	2	4	1	25.2	8.4	16.8	4.2
10	590	11	1	10	7	18.7	1.7	17.0	11.9
11	26	4	0	4	1	17.7	0.0	17.7	4.4

#2 A - INTERMEDIATE GENERAL HOSPITALS
(40-99) beds

Montana - 1960
(Continued)

Neo- natal rank in group	No. of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant	1-11 Months	Neonatal	Stillbirth
12	430	9	1	8	3	20.9	2.3	18.0	7.0
13	403	10	2	8	4	24.8	5.0	19.8	9.9
14	375	10	0	10	8	26.6	0.0	26.6	21.3
15	334	12	3	9	4	35.9	9.0	26.9	12.0
16	86	3	0	3	1	34.8	0.0	34.8	11.9

#2 B - INTERMEDIATE GENERAL HOSPITALS
(40-99 beds)

Montana - 1956 through 1960

Year	No. of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant	1 - 11 Months	Neonatal	Stillbirth
Total	29,305	537	65	472	371	mean 18.3	2.2	16.1	12.7
1956	5,632	102	21	81	82	18.1	3.7	14.4	14.6
1957	5,747	111	14	97	72	19.3	2.4	16.9	12.5
1958	5,569	109	7	102	69	19.6	1.2	18.3	12.4
1959	6,180	105	10	95	80	17.0	1.6	15.4	12.9
1960	6,177	110	13	97	68	17.8	2.1	15.7	11.0

#2 C - INTERMEDIATE GENERAL HOSPITALS
(40-99 beds)

Montana - 5 Year Period - 1956-1960

Neo-natal rank in group	Number of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant	1 - 11 Months	Neonatal	Stillbirth
Total	29,305	537	65	472	371	mean 18.3	2.2	16.1	12.7
1	1,084	7	0	7	12	6.4	0.0	6.4	11.1
2	1,033	8	1	7	2	7.7	1.0	6.8	1.9
3	1,183	21	8	13	14	17.7	6.7	11.0	11.8
4	3,169	45	7	38	34	14.2	2.2	11.9	10.7
5	1,993	29	2	27	26	14.5	1.1	13.5	13.5
6	3,132	50	3	47	37	15.9	0.9	15.0	11.8
7	1,551	24	0	24	19	15.5	0.0	15.5	12.2
8	2,143	39	3	36	42	18.2	1.4	16.8	19.6
9	1,806	35	4	31	27	19.3	2.2	17.2	14.9
10	449	10	2	8	3	22.2	4.7	17.8	6.7
11	1,219	25	3	22	15	20.5	2.5	18.0	12.3
12	1,917	38	3	35	34	19.8	1.6	18.3	17.7

#2 C - INTERMEDIATE GENERAL HOSPITALS
(40-99 beds)

Montana - 5 Year Period - 1956-1960
(Continued)

Neo- natal rank in group	No. Of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant	1 - 11 Months	Neonatal	Stillbirth
13	1,754	37	3	34	24	21.1	1.7	19.4	13.6
14	1,485	30	1	29	18	20.2	0.7	19.5	12.1
15	1,732	38	4	34	23	21.9	2.3	19.7	12.2
16	1,750	45	9	36	16	25.7	5.1	20.6	9.1
17	1,905	56	12	44	25	29.4	6.3	23.1	13.1

#3 A - SMALL GENERAL HOSPITALS
(10-39 beds)
Montana - 1960

Infant and Fetal Mortalities

Neo- natal rank in group	No. of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant mean	1 - 11 Months	Neonatal	Stillbirth
Total	3,798	77	13	64	47	20.3	3.4	16.9	12.4
1	46	0	0	0	0	0.0	0.0	0.0	0.0
1	89	0	0	0	0	0.0	0.0	0.0	0.0
1	32	0	0	0	0	0.0	0.0	0.0	0.0
1	25	0	0	0	0	0.0	0.0	0.0	0.0
1	37	0	0	0	0	0.0	0.0	0.0	0.0
1	81	0	0	0	0	0.0	0.0	0.0	0.0
1	5	0	0	0	0	0.0	0.0	0.0	0.0
1	0	0	0	0	0	0.0	0.0	0.0	0.0
1	55	0	0	0	0	0.0	0.0	0.0	0.0
1	74	0	0	0	1	0.0	0.0	0.0	13.5
1	143	0	0	0	2	0.0	0.0	0.0	14.0
1	103	0	0	0	2	0.0	0.0	0.0	19.4

#3 A - SMALL GENERAL HOSPITALS
(10-39 beds)
Montana - 1960

Infant and Fetal Mortalities
(Continued)

Neo- natal rank in group	No. of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant	1 - 11 Months	Neonatal	Stillbirth
1	93	0	0	0	2	0.0	0.0	0.0	21.5
1	40	0	0	0	1	0.0	0.0	0.0	25.0
1	28	0	0	0	1	0.0	0.0	0.0	35.7
1	46	0	0	0	2	0.0	0.0	0.0	43.5
1	52	2	2	0	0	38.5	38.5	0.0	0.0
2	134	1	0	1	7	7.5	0.0	7.5	52.2
3	97	2	1	1	0	20.6	10.3	10.3	0.0
4	78	1	0	1	1	12.8	0.0	12.8	12.8
5	76	3	0	3	2	39.5	0.0	13.2	26.3
6	151	2	0	2	3	13.3	0.0	13.3	19.0
7	140	4	2	2	2	28.6	14.3	14.3	14.3
8	139	2	0	2	1	14.4	0.0	14.4	7.2
9	243	4	0	4	2	16.5	0.0	16.5	8.2

#3 A - SMALL GENERAL HOSPITALS
 (10-39 beds)
 Montana - 1960
 (Continued)
 Infant and Fetal Mortalities

Neo- natal rank in group	No. of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant	1 - 11 Months	Neonatal	Stillbirth
10	119	2	0	2	0	16.8	0.0	16.8	0.0
11	112	2	0	2	1	17.9	0.0	17.9	8.9
12	111	2	0	2	1	18.0	0.0	18.0	9.0
13	165	6	3	3	2	36.4	18.2	18.2	12.2
14	204	4	0	4	1	19.6	0.0	19.6	4.9
15	147	3	0	3	0	20.4	0.0	20.4	0.0
16	87	2	0	2	2	23.0	0.0	23.0	23.0
17	159	8	4	4	2	50.3	25.2	25.2	12.6
18	153	4	0	4	0	26.1	0.0	26.1	0.0
19	111	3	0	3	3	27.0	0.0	27.0	27.0
20	222	9	0	9	4	40.5	0.0	40.5	18.0
21	91	5	1	4	0	54.9	10.9	43.9	0.0
22	64	3	0	3	1	46.9	0.0	48.4	15.6
23	46	3	0	3	1	65.2	10.0	65.2	21.7

#3 B - SMALL GENERAL HOSPITALS
(10-39 beds)

Montana - 5 Year Period - 1956-1960
Infant and Fetal Mortalities

Year	No. of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant mean	1 - 11 Months	Neonatal	Stillbirth
Total	19,382	410	100	310	268	21.2	5.1	15.9	13.8
1956	3,851	94	21	73	52	24.4	5.5	18.9	13.5
1957	4,099	88	34	54	58	21.5	8.3	13.2	14.1
1958	3,736	83	18	65	60	22.2	5.2	17.4	16.1
1959	3,898	68	14	54	51	17.4	3.6	13.9	13.1
1960	3,798	77	13	64	47	20.3	3.4	16.9	12.4

#3 C - SMALL GENERAL HOSPITALS
(10-39 beds)

Montana - 5 Year Period - 1956-1960
Infant and Fetal Mortalities

Neo- natal rank in group	No. of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant mean	1 - 11 Months	Neonatal	Stillbirth
Total	18,322	366	74	292	245	20.0	4.0	15.8	13.4
1	106	3	3	0	2	28.3	28.3	0.0	18.9
2	381	1	0	1	7	2.6	0.0	2.6	18.4
3	341	1	0	1	2	2.9	0.0	2.9	5.9
4	292	3	2	1	3	10.3	6.8	3.4	10.3
5	225	1	0	1	4	4.4	0.0	4.4	18.2
6	415	7	2	5	7	16.9	4.8	7.2	16.9
7	218	2	0	2	2	9.2	0.0	9.2	9.2
8	491	6	1	5	11	12.2	2.0	10.2	22.4
9	578	7	1	6	6	12.1	1.7	10.4	10.4
10	95	1	0	1	1	10.5	0.0	10.5	10.5
11	376	5	1	4	2	13.3	2.7	10.7	5.3

#3 C - SMALL GENERAL HOSPITALS
(10-39 beds)

Montana - 5 Year Period - 1956-1960
Infant and Fetal Mortalities
(Continued)

Neo- natal rank in group	No. of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant	1 - 11 Months	Neonatal	Stillbirth
12	749	9	0	9	6	12.0	0.0	12.0	8.0
13	165	3	1	2	0	18.1	6.1	12.1	0.0
14	714	10	1	9	21	14.0	1.4	12.6	2.9
15	617	9	1	8	4	14.6	1.6	13.0	6.5
16	516	8	1	7	5	15.5	19.3	13.5	9.7
17	801	11	0	11	2	13.6	0.0	13.6	2.5
18	655	21	12	9	14	23.0	18.3	13.7	21.3
19	348	6	1	5	6	17.2	2.9	14.4	17.2
20	407	7	1	6	5	17.2	2.5	14.7	12.3
21	917	23	9	14	14	25.1	9.8	15.3	15.3
22	648	10	0	10	7	15.4	0.0	15.4	10.8
23	1,206	22	3	19	15	18.2	2.5	15.6	12.4
24	231	4	0	4	1	17.3	0.0	17.3	4.3
25	959	24	5	19	16	25.0	5.2	19.8	16.7

#3 C - SMALL GENERAL HOSPITALS
(10-39 beds)

Montana - 5 Year Period - 1956-1960
Infant and Fetal Mortalities
(Continued)

Neo- natal rank in group	No. of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant	1 - 11 Months	Neonatal	Stillbirth
26	788	19	3	16	12	24.1	3.8	20.3	15.2
26	1,036	40	19	21	20	38.6	18.3	20.3	19.3
27	433	9	0	9	7	20.8	0.0	20.8	16.2
28	430	10	1	9	2	23.3	2.3	20.9	4.6
29	426	9	0	9	5	21.1	0.0	21.1	11.7
30	280	6	0	6	5	21.4	0.0	21.4	17.9
31	246	8	2	6	2	32.5	8.1	23.9	8.1
32	402	10	0	10	5	24.9	0.0	24.9	12.4
33	62	17	1	16	7	27.3	1.6	25.7	11.2
33	1,205	34	3	31	17	28.1	2.5	25.7	14.1

Note: These figures vary somewhat from the other five-year report because some hospitals were not operating all five years, and thus were not included in this table.

#4 A - COMMUNITY FACILITY
(Under 10 beds)

Montana - 1960
Infant and Fetal Mortalities

Neo- natal rank in group	No. of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant mean	1 - 11 Months	Neonatal	Stillbirth
Total	104	3	0	3	3	28.8	0.0	28.8	38.5
1	25	0	0	0	1	0.0	0.0	0.0	40.0
2	60	1	0	1	2	16.6	0.0	16.6	33.3
3	19	2	0	2	1	105.3	0.0	105.3	52.6

#4 B - COMMUNITY FACILITY
(Under 10 beds)

Montana - 1956 through 1960
Infant and Fetal Mortalities

Year	No. of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1 - 11 Months	Neonatal	Stillbirth	Infant	1 - 11 Months	Neonatal	Stillbirth
Total	450	8	1	7	11	17.8	2.2	15.6	24.4
1956	74	2	1	1	1	21.3	10.6	10.6	10.6
1957	64	2	0	2	2	31.3	0.0	31.3	31.3
1958	99	0	0	0	1	0.0	0.0	0.0	10.1
1959	89	1	0	1	3	11.2	0.0	11.2	33.7
1960	104	3	0	3	4	28.8	0.0	28.8	38.5

